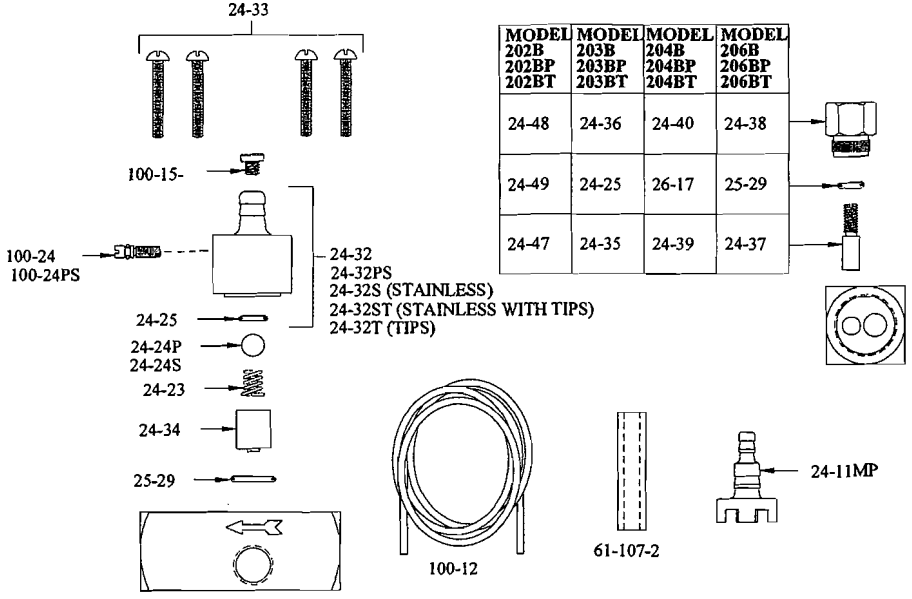
ADJUSTABLE SINGLE-STAGE INJECTORS

MODELS: 202B, 202BP, 202BT, 203B, 203BP, 203BT, 204B, 204BP, 204BT, 206B, 206BP, 206BT

MODEL #'S MAY ALSO INCLUDE S, E, C AND/OR -2.



MODEL 202B 202BP 202BT	MODEL 203B 203BP 203BT	MODEL 204B 204BP 204BT	MODEL 206B 206BP 206BT
24-48	24-36	24-40	24-38
24-49	24-25	26-17	25-29
24-47	24-35	24-39	24-37

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
24-11MP	FOOT STRAINER	24-39	BY-PASS SCREW
24-23	CHECK VALVE SPRING	24-40	BY-PASS SCREW RETAINER
24-24P	CHECK VALVE BALL (TEFLON)	24-47	BY-PASS SCREW
24-24S	CHECK VALVE BALL (STAINLESS)	24-48	BY-PASS SCREW RETAINER
24-25	CHECK VALVE O-RING	24-49	O-RING
24-32	METERING KNOB ASSY.	25-29	O-RING
24-32PS	METERING KNOB ASSY. (BP INJECTORS)	26-17	O-RING
24-32S	METERING KNOB ASSY.	61-107-2	CERAMIC WEIGHT
24-32ST	METERING KNOB ASSY.	100-12	VINYL TUBING (3/8" O.D. X 8' LG)
24-32T	METERING KNOB ASSY.	100-15-	METERING TIP (SPECIFY COLOR)
24-33	SCREW #8-32 X 7/8 LG. (4-REQD.)	100-15K	METERING TIP KIT (14 PCS.)
24-34-	CHECK VALVE CORE (SPECIFY MODEL NO.)	100-24	METERING SCREW
24-35	BY-PASS SCREW	100-24PS	METERING SCREW (-BP INJECTORS)
24-36	BY-PASS SCREW RETAINER		
24-37	BY-PASS SCREW		
24-38	BY-PASS SCREW RETAINER		

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MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT
INSTALLATION INSTRUCTIONS

1. **PARTS**
   A. Injector
   B. Ceramic Weight.
   C. Plastic tubing 8' long with foot strainer.

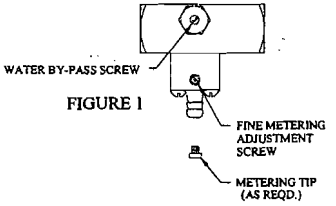

FIGURE 1

2. **INSTALLATION**
The injector may be installed in any position in the water line with the arrow in the direction of flow. Drop end of plastic tubing with strainer into fluid product container. Cut tubing to convenient length, and slip open end over injector fitting.

3. **OPERATION**
Warning: Use care when handling hazardous chemicals.
See Fig. 1 for location of water bypass screw and fine metering adjustment screw. Turn on water supply valve. The injector may draw momentarily as the system is filling but normally will stop as the system builds up to full pressure. To actuate injector, turn the bypass screw clockwise until product begins to be drawn from the container. After the fluid reaches the injector, the feed rate may be adjusted to the desired rate by turning the bypass screw. The maximum injection rates are shown in Table 2. For low injection rates, it is advisable to set the bypass screw for more injection than required; then turn the fine metering screw clockwise to reduce injection to the desired rate. Table 1 shows the operation range of the injector. If the injector will not draw with the bypass screw full in, then the water flow is below the range of the injector. If the injector draws with the screw full out but pressure loss is excessive, then flow is above the range of the injector. Table 3 shows the injection rates for models 202 BT, 203 BT, 204 BT, and 206 BT using metering tips at various viscosities. Table 4 shows the appropriate pipe size used for each injector.

TABLE 1

Water Pressure (psi)	Operating Range - Gallons Per Minute			
	Model 202 B	Model 203 B	Model 204 B	Model 206 B
10	0.25 - 2.00	0.50 - 3.50	2.00 - 6.40	3.60 - 11.00
20	0.30 - 2.30	0.55 - 4.40	2.30 - 7.50	4.20 - 13.00
40	0.37 - 2.90	0.70 - 5.40	2.90 - 9.50	5.30 - 17.00
60	0.43 - 3.40	0.80 - 6.40	3.40 - 11.00	6.20 - 19.00
100	0.54 - 4.20	1.00 - 8.00	4.20 - 14.00	7.70 - 24.00
200	0.73 - 5.70	1.40 - 11.00	5.70 - 19.00	11.00 - 33.00
400	1.00 - 7.90	1.90 - 15.00	7.90 - 26.00	15.00 - 46.00
500	1.20 - 8.90	2.10 - 17.00	8.90 - 29.00	17.00 - 51.00
* 700	1.40 - 11.00	2.50 - 20.00	11.00 - 35.00	20.00 - 60.00
* 1000	1.60 - 13.00	3.00 - 23.00	13.00 - 41.00	23.00 - 70.00
* 1500	2.00 - 16.00	3.50 - 28.00	16.00 - 50.00	28.00 - 87.00
* 2000	2.20 - 18.00	4.70 - 37.00	18.00 - 58.00	33.00 - 100.00
* 3000	2.70 - 20.00	5.00 - 45.00	20.00 - 70.00	40.00 - 100.00

* SPECIFY – S Stainless Steel Knob – Part No. 24-32S or Part No. 24-32ST (for tips) for pressure exceeding 700 PSI.

TABLE 2

Fluid Viscosity (cps)	Maximum Injection (Oz/Min)			
	Model 202 B	Model 203 B	Model 204 B	Model 206 B
1	8	20	40	48
75	5	8	8	9
200	3	4	4	4

TABLE 3

Metering Tip Color	202BT			203BT			204BT			206BT		
	Injection Rates (Oz/Min)											
	Viscosity (cps)			Viscosity (cps)			Viscosity (cps)			Viscosity (cps)		
	1	75	200	1	75	200	1	75	200	1	75	200
Tan	1.0	1.0	0.6	1.1	0.8	0.5	1.1	0.8	0.5	1.0	0.7	0.6
Orange	1.5	1.2	0.7	1.4	1.0	0.7	1.4	0.9	0.6	1.4	1.0	0.8
Turquoise	1.8	1.4	1.2	2.0	1.4	1.0	1.9	1.2	0.9	1.9	1.3	1.0
Pink	2.5	2.0	1.4	2.7	1.8	1.3	2.6	1.7	1.3	2.6	1.8	1.3
Clear	3.3	2.7	1.7	3.5	2.4	1.6	3.4	2.4	1.6	3.5	2.3	1.7
Brown	3.2	2.9	1.9	4.0	2.7	1.7	4.0	2.4	1.9	4.0	2.6	1.8
Red	4.2	3.0	2.1	4.9	3.3	2.0	4.9	2.9	2.2	5.0	3.1	2.0
White	4.8	3.5	2.1	6.0	3.9	2.3	6.0	3.4	2.4	6.2	3.7	2.4
Green	5.2	3.7	2.3	6.8	4.4	2.5	6.8	3.8	2.5	7.1	4.1	2.6
Blue	6.2	4.0	2.4	7.8	4.9	2.7	8.4	4.3	3.1	8.9	4.8	2.9
Yellow	7.1	4.3	2.7	10.3	5.9	2.9	13.1	5.2	3.4	13.5	5.9	3.2
Black	7.0	4.4	2.8	13.2	6.7	3.0	18.2	6.1	3.5	20.1	6.7	3.5
Purple	7.4	4.6	2.9	17.1	6.7	3.1	27.5	6.8	3.5	31.3	7.5	3.6
Gray	7.8	4.7	3.1	19.0	7.1	3.3	32.9	7.0	3.5	38.3	8.0	3.8
No Tip	7.9	4.7	3.3	20.0	8.0	3.7	39.8	7.9	3.7	48.1	9.2	4.4

All induction rates are based on a water inlet pressure of 40 psi and operating at a full vacuum.

DEMA ADJUSTABLE SINGLE STAGE INJECTORS
MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT
INSTALLATION INSTRUCTIONS

TABLE 4

Model	Pipe Size
202 B	3/8 NPT
203 B	3/8 NPT
204 B	1/2 NPT
206 B	3/4 NPT

4. SERVICING

CAUTION: **Turn off water supply before servicing.**

The check valve parts are in the metering knob and can be cleaned by removing the four screws. The knob may be rotated if it is more convenient to have the adjusting screw on another side of the injector. As with any injector, if spray jets become clogged or downstream restriction increases in any manner, the injector will stop drawing fluid. If it is inconvenient to remove the restriction immediately, the injector may be put back into operation by turning the water bypass screw further clockwise; this adjusts the injector to the lower flow rate. The bypass screw should be reset once the restriction is removed.

CAUTION: **When servicing, make sure that replacement parts have been installed according to drawing. Be certain to check valve parts are in place.**

RETURNS: **NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.**

WARRANTY: DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"- rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.